American River Watershed Project, California
Folsom Modification and Folsom Dam Raise Projects
Economic Reevaluation

External Peer Review Plan

May 2007

Background

An Economic Reevaluation Report (ERR) is being developed for two purposes: (1) to update the information that provides the basis for economic justification of the American River Watershed Project[1]; and (2) in accordance with project specific guidance to verify the determination of Federal interest in financial participation in the recommendations of the *Folsom Modification and Folsom Dam Raise Projects Post Authorization Change Report, March 2007*[2] *(2007 PAC Report).* It is intended to meet the requirements of a limited reevaluation undertaken specifically for economic reevaluation.

The Folsom Dam Modification and Folsom Dam Raise Projects share an objective of improving flood management on the lower American River to reduce the risk of flooding to the Sacramento area, primarily through structural modifications to the existing Folsom Dam and appurtenant facilities. The Folsom Modification Project is a single-purpose flood damage reduction project. The Folsom Dam Raise Project is a multiple purpose project consisting of both authorized flood damage reduction and ecosystem restoration projects. The subject study meets many of the criteria which trigger an External Peer Review (EPR) as set forth in EC 1105-2-408, paragraph 9, section a. Thresholds set forth in the guidance that are applicable to this effort are novelty of the work, controversial, potentially precedent setting, and a significant interagency interest.

Because the ERR is focused on the flood damage reduction objective of each project, the USACE Planning Center of Expertise for Flood Damage Reduction (PCX FDR) – South Pacific Division (SPD) - has the responsibility for accomplishment and quality of the EPR as set forth in EC 1105-2-408. Since the ERR is supporting documentation for the *2007 PAC Report*, EPR for the ERR is being approached in a manner consistent with that of EPR for the *2007 PAC Report*. Associated documents are the *Folsom Modification and Folsom Dam Raise Projects, California, Post Authorization Change Report, External Peer*

[1] ER 1105-2-100, Planning Guidance Notebook, Appendix G; and EC 11-2-187, Corps of Engineers Civil Works Direct Program, Program Development Guidance, Fiscal Year 2008.

[2] CEMP-SPD, Folsom Modification Project, 29 November 2005.

Review Plan, and the basic EPR plan described in CEWSPK-PD Memorandum for PCX FDR, 10 October 2006.

The Peer Review Plan

The ERR consists of a main report and supporting hydrology, hydraulics, geotechnical and economic appendices. As with the *2007 PAC Report*, ERR hydraulics and economics will be peer reviewed. Due to availability, the hydraulic engineer EPR team member has been changed from that of the *2007 PAC Report*. Hydrology was peer reviewed for the *2007 PAC Report* and has not fundamentally changed since that time. The nature of geotechnical review for the ERR has changed from that of the *2007 PAC Report*. The *2007 PAC Report* EPR review included rock mechanics and structural design; that is because that investigation explored the feasibility of constructing an auxiliary spillway facility. These disciplines are not pertinent to the ERR. Instead, EPR for the ERR will include a geotechnical review focused on the earthen levee structures. Cost estimates were not repriced for the ERR so no EPR was conducted for cost estimates represented in the ERR. Hydraulic engineering, geotechnical engineering, and economics are the disciplines considered critical to developing floodplains, associated economic damages, and benefits from the project defined in the *2007 PAC Report*. No technical information contained in the ERR is considered to be highly influential scientifically nor precedent setting. It should be noted that as part of the analysis for National Economic Development, a non-residential content study was conducted that provided up to date estimates specific to the Sacramento metropolitan area. This information has already generated the interest of other District's.

For hydraulic engineering and economics, individual subject matter experts who work external to the Corps were identified to conduct this EPR. Because there is limited expertise in geotechnical engineering for earthen levees and because of the selected reviewers particular experience, the EPR for geotechnical engineering works for the Corps' Engineering and Research Design Center (ERDC) in Vicksburg, Mississippi. The EPR members were identified by each respective Sacramento District technical function. Neither the public nor any outside group was asked to nominate EPR members. The following table shows the EPR members.

Name/Affiliation	Discipline
Brad Moore/David Ford Consulting Engineers, Inc.	Hydraulic Engineering
George Sills/ U.S. Army Corps of Engineers Engineering Research and Design Center	Geotechnical Engineering
Michael Gorecki/Nobel Consultants, Inc.	Economics

The Draft ERR (dated May 2007) is to undergo EPR. EPR is accomplished via individual scopes of service and product submittals and will be complied and submitted to higher Corps authority with the final ERR.

In addition to the EPR, all products are undergoing seamless and formal Independent Technical Review. The draft reports will undergo coordinated EPR and formal ITR. Because the ERR is not a decision document, there is no public and agency review. EPR comments and evaluation and draft treatment of comments will be provided to the ITR team for their information and use.

For reference, the following table shows the Project Deliver Team (PDT) members are identified as well as the members of the PCX FDR.

PDT Members		
Name/District	**Title/Discipline**	**Office**
SPK		
Dan Tibbitts	Project Manager	CESPK-PM-C
Gary Bedker	Technical Lead Economics	CESPK-PD-W
Marchia Bond	Hydrologist	CESPK-ED-DW
Brett Whitin	Hydraulic Engineer	CESPK-ED-DH
Joe Sciandrone	Geotechnical Engineer	CESPK-ED-GS
Alicia Kirchner	Lead Planner	CESPK-PD-W
PCX FDR		
Mark Charlton	Director, PCX FDR	CESPD-PDS
Clark Frentzen	Technical P.O.C., PCX FDR	CESPD-PDS-P